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TOWARDS COMMUNITY-BASED NATURAL RESOURCES MANAGEMENT IN THE WATER SECTOR:

An Analysis of Legislative Changes made under the South African and Zimbabwean Water Reforms

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PREFACE

The Centre for Applied and Social Sciences (CASS) at the University of Zimbabwe and the Programme for Land and Agrarian Studies (PLAAS) at the University of the Western Cape are jointly implementing a three-year regional programme of analysis and communication on CBNRM in Southern Africa. The Ford Foundation and the International Development Research Centre (IDRC) fund the programme.

The aim of the programme is to contribute to the sustainable enhancement of rural livelihoods in Southern Africa by promoting a broader and deeper understanding of how natural resources can be used and managed sustainably through group based institutions and decision-making. The specific objectives for the programme are to:

- Enhance regional understanding of opportunities and constraints of CBNRM through in-depth analysis, comparison, synthesis, theoretical development and operational recommendations;
- Draw lessons for CBNRM policy and practice through the analysis of cross-regional and cross-sectoral commonalties and differences;
- Contribute to improvement in the practice of CBNRM;
- Make a range of actors and agencies in Southern Africa more aware of CBNRM concepts, activities, methods, opportunities and constraints by stimulating debate and by communicating ideas and information;
- Contribute to the regional validation of group based systems of resource tenure and management as viable modern frameworks for sustainable development and as economically, environmentally and socially legitimate alternatives to individualised, freehold based systems.

The programme has **two components**:

- **comparative analysis** of CBNRM issues in Southern Africa that are undertaken by programme staff and by recipients of programme research grants; and,
- **communications activities** by the programme to disseminate information and analysis and stimulate debate on CBNRM through an open and a moderated Internet forum; and through the publication of short guideline papers on policy and practice, research papers, and newsletters.

Each year, key CBNRM themes are identified by participants within the programme to stimulate debate: at regional meetings, through e-mail discussions, and CBNRM newsletters. This Occasional Paper Series is designed to publicise research papers that have relevant aspects of CBNRM across southern Africa and that may help enhance the standard of living of those who practise it.

List Of Acronyms

CC	-	Catchment Council
CEO	-	Chief Executive Officer
CBNRM	-	Community Based Natural Resources Management
CMA	-	Catchment Management Agency
DWAF	-	Department of Water Affairs and Forestry
DWD	-	Department of Water Development
ICM	-	Integrated Catchment Management
SCC	-	Sub-catchment Council
WMA	-	Water Management Area
WRMS	-	Water Resources Management Strategy
WUA	-	Water User association
WUB	-	Water User Board
ZINWA	-	Zimbabwe National Water Authority

Abstract

This paper presents a comparative review of Zimbabwe and South Africa's water Acts of 1998. The legislative changes made in both countries were not isolated events. They were part of broader reform programs aimed at changing operations of the water sectors in the two countries. This paper, therefore, gives a brief background to the water sector reforms in both countries in order to place the legislative changes in their proper context. The main objectives and the rationale behind these reforms are outlined. It is argued in the paper that there is a considerable amount of similarity between the two countries' main reasons and objectives for reforming their water sectors.

The major objectives identified as applicable to both countries include:

- Promotion of equality in access to water for all citizens
- To decentralise water management to the catchment level
- To increase stakeholder participation in the decision-making process for the water sector
- To promote integrated management of water resources
- To make the sector self financing by instituting cost recovery measures and approaches in the distribution of water

While a number of objectives of the reforms are pointed out, the attainment of equitable access to water is singled out as the most outstanding one.

The paper explores the driving philosophy and generic concepts behind the reforms. Relevant literature and documentation is cited in order to clarify some of the fundamental concepts dealt with in the paper. In another section, the same fundamental concepts are discussed in relation to their applicability to the Zimbabwean and South African situations as reflected in the two countries' Water Acts of 1998. An analysis of the main features of the two pieces of legislation is made as well as an attempt to bring out their implications for water resources management. Important issues left out of the reforms are also pointed out and suggestions for improving the legislation are proffered wherever necessary.

1. INTRODUCTION

Water is a critical natural resource for development. Zimbabwe and South Africa have been involved in a complex and difficult process of reforming their water sectors. Debate on the need to revamp the two countries' water sectors ensued in the early 1990s. Under this reform process, the need to change the legislation governing the water sector was identified as of paramount importance if the reform were to result in any meaningful change. A review of the legislation was initiated culminating in the production of new water Acts for both countries in 1998. The main objectives for reforming the water sector are generally similar in both countries and a comparative examination of the new Water Acts could provide important lessons for both countries. According to Darby, (1997:1) "in many respects, Zimbabwe is ahead of South Africa in the water sector reform process. But in many important respects, Zimbabwe can benefit greatly by emulating the attitude and actions of the South African Government." The new legislation has been formulated with a view to bringing the governance of the water sector to the local levels in the general framework that Community-Based Natural Resources Management (CBNRM) principles provide.

Issues of equity in access to water, efficient and sustainable water use, and decentralisation of water management to local communities are at the centre of the water reform programs being carried out in Zimbabwe and South Africa. Pre-independence legislation in both countries largely sidelined these fundamental concerns and the new water legislation is expected to address these concerns. New institutions have emerged from the new legal framework. The potential effectiveness of the governance regime emanating there from has not yet been adequately assessed. But as Darby (1997:13) puts it "the law should not be exempt from the consequences of its actions." So far there is no guarantee that the new legal frameworks and institutions will be more effective than the old ones, hence the need to examine their functionality under the new water management regime.

2. OBJECTIVES OF THE REFORMS

A number of objectives of the reforms have been outlined in various documents. For Zimbabwe, the objectives are outlined in the Ministry of Lands and Water Resources program document for the Development of a National Water Resources Management Strategy (WRMS, 1995). For South Africa, the Department of Water Affairs and Forestry (DWAF, 1996) outlined the main principles to be followed and the objectives to be achieved. A summary of the identified objectives for both countries is outlined below. Each of the objectives applies to both countries.

(i) The promotion of equal access to water for all citizens. This objective took cognisance of the fact that most of the available water was mainly being used by a small segment of the population (large-scale commercial farmers). Small-scale users and communal areas often did not have access to the resource even in cases where the resources had been developed in their vicinity. Promoting equal access therefore, meant redressing past injustices in water access for the benefit of historically disadvantaged smallholder farmers and upcoming indigenous farmers without prejudicing large scale commercial and estate concerns (Bolding et. al, 1997:32)

(ii) To promote stakeholder participation and involvement in the decision-making process for the water sector. Ministry of Rural Resources and Water Development (1999:10) states that this is to be done in light of the fact that participation in water matters has been restricted to a privileged section of society, the large-scale commercial farmers. The legal and institutional provisions did not create an environment conducive to stakeholder participation. The need to revamp the legal

and institutional environment of the water sector was therefore identified as a high priority issue.

(iii) To promote an integrated approach to water resources development planning and management. This meant emphasising co-ordinated development and utilisation of the resource between and among different sectors in order to maximise the social, economic and environmental value of the resources to society.

(iv) To decentralise water management institutions to the river basin level. This entailed the formation of water user organisations as smaller units of management that are closer to the people on the ground

(v) To remove inefficiencies in water use and make the sector self-sustaining. This encompassed putting more emphasis on cost recovery of investments in the water sector and treating water as an economic good. Thus, the user-pays principle was adopted to reinforce this new focus.

Redressing past injustices in water allocation cannot be successfully carried out without systematic legislative and policy changes. With reference to the Zimbabwean situation, Kambudzi (1997:59) argues that:

> *"...from 1920 to 1980, and at least up to 1990, there existed a legal and administrative regime which governed the ownership, access, control and use of agro-water in favour of sectional interests: white commercial farming, industry, and mining. This monopoly over access to water rights, especially by the white farming community is only being dismantled today."*

Dismantling that monopoly meant the formulation of a new Water Act and governance regime. An almost similar situation prevailed in South Africa due to the apartheid policies. Asmal (1997:2) states that more than half of South Africa's water is used by commercial farmers, and that water is mostly used (and often inefficiently) by a dominant group which had privileged access to land, water and economic power." Without legislative change, it would be difficult to dismantle the monopoly of the large-scale commercial farmers over water.

The following excerpts taken from South Africa's Department of Water Affairs and Forestry publication (1996:31), shows the importance of legal and institutional change in the governance of the water sector:

> *"In South Africa, the department of water resource managers were fully aware that the existing institutional structures and legal framework were inadequate to deal with the complexity of water resources management."*

"The absence of suitable institutional structures and the presence of an inappropriate legal framework also prevented adequate involvement of the public in decisions around the wider socio-economic implications of development and resource management."

Given the above scenario it is only appropriate and necessary to review the new legislation in order to find out the extent to which it addresses the shortcomings of the previous water management regime in both Zimbabwe and South Africa. From such an analysis, conclusions and recommendations may be drawn for the improvement of the management of water.

3. FUNDAMENTAL CONCEPTS BEHIND THE REFORMS

3.1 Equity

Most definitions of equity reflect that it is a value-loaded concept. It is about the need for justice, and fairness as defined by a particular society. Okigbo (1987:175) states that "equity connotes a sense of fairness, equality and even-handedness before the law and consequently, equitable distribution must begin with the root - the re-arrangement of property relations, with ownership and command over resources". In a speech presented at a workshop on water, the South African Minister of Water Affairs and Forestry (September 1997) stated, "I believe that equity means fairness. Equity means justice. Everyone can understand and appreciate fairness and justice. No one would wish to deny another person fairness or justice in access to water." While the idea of equity is quite appealing, it should be noted that equitable access to water is not the same as equal distribution. In any case, equal distribution is not desirable, for the simple reason that it is inconceivable for the water needs of one sector to be quantitatively equal to those of another sector. The water needs of a communal farmer, for instance, are rarely equal to those of the large-scale commercial farmer. What is needed is the evening out of the platform for access to the resource and, to the extent possible, the evening out of the platform for utilising the resource to achieve some economic benefits. Therefore, equity is a social and political question insofar as it seeks to redress historical imbalances in resource allocation.

The issue of equity is also an economic question insofar as it attempts to provide disadvantaged groups with the opportunity to actively utilise water and improve their living conditions. It appeals to policy-makers to consider the social and political implications of the resource distribution system and change it if necessary. It also behoves them to think about the economic consequences of that resource distribution system. Basu (1994:24) states that "to serve the cause of social equity is to actively work for social change. The attack is on the status quo and against powerful interests entrenched in permanent institutions." Legislative changes made in Zimbabwe and South Africa were expected to bring about this type of change.

The concept of equitable access can appeal to policy-makers and planners to plan for fair and just resource allocation and conflict resolution mechanisms. Equity in access to water treats water as a resource with an emotional and symbolic value. In agriculture, water (and land) availability represents security and large-scale commercial farmers would do all they can to cling to as much of these resources as possible even in the face of glaring and acute shortages among other groups in society. Any successful reform program therefore, has to address the issue of equitable access to the available resources.

3.2 Decentralisation and Stakeholder Participation

A deliberate attempt was made to place the Zimbabwean and South African water sector reforms in the context of decentralisation approaches; participatory philosophies and stakeholder involvement principles. Decentralisation may be referred to as the formation of management structures at levels lower than, and away from, central government. It involves the transfer of management functions from the centre to other structures that are closer to the communities. This is expected to afford local communities and other stakeholders the opportunity to meaningfully participate in the design of development initiatives that affect them in one way or another (Hill, 1974). While decentralisation and 'participatory development' is not the main subject of discussion in this paper, it needs to be mentioned that a lot of literature on it abounds and a lot of effort has been devoted to the study of this concept (see Mawhood, 1983; Rondinelli and Cheema, 1983; Stohr and Taylor, 1981; World Bank, 1993).

Over the years, development theorists have identified three main models of decentralisation. The first one is 'devolution', which involves the transfer of governance responsibility from the centre to elected committees or institutions at the local levels (Hyden, 1983; Murphree, 1991; Murombedzi, 1991). This model has gained considerable popularity and support among development theorists mainly because it gives the image of communities deciding what to do in terms of developing themselves, as well as how to do it without external interference. According to Riddell (1985:211) "devolution, the most politically complete form of power allocation, arises through the political necessity to create independent levels of 'look-alike' sub-national government." In short, devolution has been taken to represent the blueprint that gives grassroots people the power to take their destiny into their own hands.

The second model of decentralisation is known as 'de-concentration'. It refers to a situation where governance responsibility is transferred from central government to lower structures made up of government appointees who will operate at the local levels. (Hyden, 1983; Mawhood, 1983). They are more of central government representatives than local community representatives. They do not necessarily have the legitimacy to represent locals that is found under devolution. They are normally outsiders who will have to learn the ways of the communities they operate in before they know what should be done. Even when they know, these officials remain alienated from the communities they work in because their operations are guided by directives from central government and not the community itself.

The third one is known as the 'mixed-authority'. It brings together people elected at the local level, and central government appointees to form one institution of governance at the local level. It is a system that gives government the benefits of local participation in decision-making without having to accept the penalties that may come with it. Locally elected officials represent the people while government appointees provide the technical expertise. This form of decentralisation has the disadvantage that the government appointees are not necessarily accountable to the local people and may end up dominating the decision-making process. Mawhood (1983:7) argues that the mixed authority was a failure in Tanzania because the government officials dominated locally elected officials. There were complaints that this was just another form of centralised rule and that local control over affairs remained as far off as ever.

Despite the differences that one can identify in these models of decentralisation, their formulation was based on a number of basic imperatives. Firstly, power and authority should be deliberately moved from the centre to the lower levels. Secondly, locals are expected to participate more meaningfully and effectively when governmental structures are located in their areas. In this respect, decentralisation is seen as a move towards making development programs more relevant and responsive to local needs and conditions. Thirdly, pressure of work at the centre is supposed to be reduced when some responsibilities are transferred to the lower levels.

One outstanding authority on the concept of decentralisation, Mawhood (1983:1), states that decentralisation suggests the hope of cracking open the blockages of an inert central bureaucracy, curing managerial constipation, giving more direct access of the people to the government and the government to the people, stimulating the whole nation to participate in national development plans. Equally interesting is the view advanced by Rondinelli et al (1983: 29) when they argue that decentralisation implies that actors and agencies possessing powers must willingly give them up or be forced or persuaded to do so. In addition decentralisation programmes always aim at trying to reduce the alienation of particular groups or regions. Stohr and Taylor (1981) refer to decentralisation as development from below, implying that there should be a deliberate process of, and commitment to, facilitating the initiation of development ideas, projects and programmes from the grassroots level as opposed to impositions from central government. It is important to note that whether or not these imperatives actually materialise in most decentralisation

initiatives, is a different question altogether since there is usually a gap between theory and reality.

From the above, one can deduce that decentralisation is a means of facilitating local participation in development programs. It enables the establishment of new management institutions at the local level instead of the capital city, the idea being to utilise smaller units of management at the lowest possible level. These smaller units are physically more manageable than bigger ones and they facilitate the decentralisation of management functions to lower levels, in this case the community itself. According to the World Bank (1993:14) "the principle is that nothing should be done at a higher level that can be done satisfactorily at a lower level." Decentralisation also changes the role that development officials play. The development official's role becomes that of facilitator as opposed to leader of the design, implementation and management of the development efforts.

Decentralisation makes the projects more relevant to social, economic, physical and political conditions prevailing within specific localities. The developmental needs of one area often differ from those of another and this makes the case for decentralisation stronger and that for centralised development planning weaker. Centralised planning cannot do it all; it does not ensure the collection of first hand information on what is necessary for the development of local communities that are far away from the centre unless the communities fully contribute. Rondinelli (1984:3) clarifies this view more clearly when he argues that,

> *"When central planners design rural development projects in the national capital without thoroughly understanding local social, economic, physical and organisation conditions, they often generate opposition among local groups. Central administrators cannot know the complex variety of factors that affect the success of projects in local communities throughout the country."*

Implementation of development programs and projects is easier if adequate consultation of the intended beneficiaries is carried out. This becomes even more important when viewed in the light of the basic goal of sustainable development. It is the beneficiaries who must eventually take control of the project when the development agency pulls out and they must therefore, be prepared for that take over. They cannot anticipate and prepare for that responsibility if they are not consulted right from the beginning. Consulting them also gives them a sense of ownership and responsibility over the project and the benefits accruing therefrom. The World Bank (1993:16) states that participation is a process in which stakeholders influence policy formulation, alternative designs, investment choices, and management decisions affecting their communities and establish the necessary sense of ownership. The water reforms in South Africa and Zimbabwe were expected to bring about this kind of participatory development in the water sector.

3.3 Water as a Social and Economic Good

The Zimbabwean and South African water reforms emphasised the need to view water as both a social and economic good. Treating water as a social good, which can be accessed at very low prices or free of charge, does not promote efficient use of that water. In both countries, increasing water demands have tended to be met by supply oriented solutions. The South African minister for Water Affairs and Forestry (1997) argues:

> *"We must learn to pay the cost of providing and managing our water. Our country was built on enormous subsidies and those subsidies remained in place long after they were required. Subsidies have been a way of life for South Africa. But this cannot continue. It is economic suicide. It is in our own self-interest to learn to pay for water. There must be short-term*

subsidies for newcomers, of course. But in the long-term, subsidies are wrong."

The World Bank (1993:30) acknowledges that pricing water well below its economic value is prevalent throughout the world. It explains that in many countries, expanding the supply is politically expedient, and therefore pricing has received much less attention. Sharma et al (1996:xvi) also argues that water, for both domestic consumption and irrigation, is under-priced because of inadequate pricing policies and that pricing policies are generally influenced by political considerations, preferred users, and equity reasons. The proclamation to treat water as an economic good originated in the Dublin conference on water and the environment held in 1992. Since then, it has spread slowly across the globe. But like other proclamations of such a nature, it has the advantage of being designed in a vague enough manner to allow applicability in various countries. The practical operational content remains undefined thereby leaving room for individual countries to implement it in a way that suits their different environments.

The economic value of water is mainly derived from the fact that it is often scarce and finite while social value arises from its status as a basic commodity that sustains life. In acknowledging the value of water as an economic good, care must be taken to ensure that water pricing and investment decisions are economically and environmentally sustainable. Cost recovery becomes much more essential and the provision of water as an exclusively social or public sector activity is discouraged. However, due to the social value of water, strategies of safeguarding the community's basic needs for water should be adopted. Reconciling the social and economic values of water can be very difficult. One can only strive to establish a delicate mix of the two when water resources projects are initiated.

Treating water as an economic good means viewing it like any other private good, subject to allocation through the market system. However, the market is rarely the perfect instrument for allocating goods that are basic to human survival. The important question is, therefore, not whether water should be treated as an economic good but whether we can allow water to be allocated according to market principles and forces only. In answering this question, one has to bear in mind that water is a basic human need and therefore, its allocation has to be carried out taking into consideration some social imperatives. The need for emphasising the user pays principle and cost recovery has to be delicately balanced with the users' ability to pay lest other users will be deprived of this basic need.

In most rural areas, of developing countries, water for domestic purposes would be difficult to treat as an economic good because many people would not be able or willing to pay for the water. The scenario might change in the case of agricultural water because this is a very productive sector that generates considerable profits. If water is provided cheaply for commercial farmers, the farmers may take as much water as they can even to the point of water-logging without considering efficient use. They have no incentive to save water and increasing water prices becomes a potential solution for arresting this problem. The paradox mainly lies in the need to create an environment conducive for new comers in the commercial farming business, particularly small-scale commercial farmers, to establish themselves. If they are just treated as the large-scale commercial farmers, they may face serious problems in terms of ability to pay.

If one of the goals is to encourage the previously disadvantaged groups to start engaging in irrigation activities, asking the same groups to pay for water could be construed as contradictory because some genuinely do not have the money to pay for water. Subsidising water for the poor groups in society might be an option. Perry et. al. (1997:13) argue that if basic human needs for safe domestic water and food production by irrigation are to be met in poor countries, some degree of subsidy may be necessary so that masses of poor people

are not priced out of the market. A delicate balance will therefore, have to be struck between the need to treat water as an economic commodity as well as a social good.

3.4 Sustainability

In water resources management the concept of sustainability has to do with the utilisation of the resource in a way that does not negate the conservation needs of the physical environment in which the water is located. To a considerable extent, this depends on effectiveness of the institutions and management systems put in place to look after the resource. In short, sustainability has to do with the question of how to preserve the environment for future generations as well as how to ensure that the management systems established remain functional for a long time. DWAF (1996:9) argues that sustainable resource use is one where, with effective management, the rate of resource withdrawal, use, consumption or depletion should always be balanced (preferably exceeded) by the rate of replenishment. In the process, the selected and agreed characteristics of the resource (e.g. quality, biological diversity, resistance to adverse change) should be maintained.

Sustainable development should, however, not be confused with growth or change. It entails achieving a compromise between protecting the ecological resource base and allowing for economic growth to take place through carefully managed use of the available resource. DWAF puts a lot of emphasis on the protection of the physical environment. It underplays the importance of the legal and institutional dynamics that are inevitable as communities and governments attempt to systematise conservation of the resource. The concept of sustainability reminds us that the human needs for water or any other natural resource should not deprive other organisms in the ecosystem of the same resource. Due consideration must be paid to conservation practices that ensure the continued availability of the resource in the face of changing utilisation patterns as human needs for the resource grow. In water resources management, the environment is seen as a water user in its own right that deserves some share of the resource during allocation. The basic idea behind is to leave some water running in rivers for the benefit of the natural plant and animal habitat whose survival is dependent on water.

Natural resources management theorists have identified a number of elements inherent in the key concepts embodied in sustainable development and management of water resources (Bromley and Cernea, 1989; Berkes 1993; Oakerson and Walker, 1997). The first element concerns itself with the need to consider the welfare of both present and future generations when utilising water. Secondly, there is need to view water as a finite resource whose exploitation is also finite, on the ground that this is the only way to protect resource for use and exploitation in the long term. Thirdly, there is also the need to consider the role of equity principles in the allocation of rights to the water. This implies that the access to, and use of the resource, made by one user must take into account the needs of other users. The fourth element concerns itself with the need to ensure that environmental considerations are integrated into the development plans and that development needs are taken into account in setting environmental objectives.

The fourth element mentioned above is more focused on institutional effectiveness and sustainability. Here reference to institutional sustainability is relevant insofar as institutions are outcomes of the prevailing legislation and policy. Institutional sustainability will not be possible where support systems are poor particularly in terms of finance, basic organisation, and technical capacity. In addition, participation of stakeholders, on whom decisions made by the institution impinge, is essential. Equally important is the need for the stakeholders to be convinced that their participation will benefit them in some substantial way. This line of thought is not new in natural resources management theory. Murphree (1991:2) argues that people seek to manage the environment when the benefits of management are perceived to exceed its costs. Murombedzi (1991:17) echoes the same sentiments when he states that

the success of all rural resource management programs is predicated on the existence of an acceptable resource management regime in which all users are involved in decision-making and stand to benefit from the management. The need for tangible benefits to be perceived as likely to accrue to the users who manage water cannot be emphasised more. It is a crucial part of the motivational equation for sustainable natural resources management.

4. A REVIEW OF THE WATER ACTS

It is interesting to note that the new water Acts for the two countries were both passed in the later half 1998. A study of the two water Acts reveals that they were written with a view to addressing the fundamental concerns already mentioned in this paper. The spirit behind both Acts seems to be one of establishing equitable access to the resource, decentralising management responsibility to local levels, ensuring sustainability and treating water as both an economic and social good. There are some essential issues about which the Water Acts are silent or gaps that they did not fill. There are also some missing links in terms of the operationalization of some of the provisions of the Acts. This paper will try to expose all these issues accordingly.

4.1 Equity

The two Water Acts are quite explicit on the need to ensure equity in access to water as well as emphasising the importance of the other fundamental concerns mentioned above. Closer analysis though, shows that the South African Water Act demonstrates more commitment to the ideal of equity than the Zimbabwean water Act. A comparison of the two Acts' preambles will demonstrate this. The South African Water Act of 1998 preamble states:

To provide for fundamental reform of the law relating to water resources ... Recognising that while water is a natural resource that belongs to all people, the discriminatory laws and practices of the past have prevented equal access to water, and use of water resources; Acknowledging the national government's Overall responsibility for and authority over the nation's water resources and their use, including equitable allocation of water for the beneficial use, the redistribution of water and international water matters ..."

Chapter 1 section 2(b) points out that one of the purposes of the Act is "promoting equitable access to water" and Section 2(c) "redressing the results of past racial and gender discrimination." Section 79 (4) (a) provides more emphasis on equity when it states that in performing its functions, a catchment management agency must "be mindful of the constitutional imperative to address the results of past racial and gender discrimination and to achieve equitable access for all to the water resources under its control." Clearly stating the need for equity right from the beginning grounds the whole Act in one of the basic principles that are now universally recognised as essential.

The Zimbabwean Water Act preamble on the other hand does not contain any statement that recognises the importance of equity. On the contrary, its preamble emphasises control of water resources and protection of the quality of water. It is only later in the Act (section 6 (1) (c) that equity is mentioned and even then, just as one of the issues that the minister must be concerned with and not as a basic guiding principle of the Act. Section 6 (1) (c) states that one of the functions of the minister shall be "to ensure the equitable and efficient allocation of the available water resources in the national interest..." It is argued here that the Zimbabwean Water Act of 1998 does not adequately emphasise the issue of equitable access to water while the South African Water Act gives the issue sufficient attention.

It is however, quite relieving to note that both Acts do away with the practice of issuing licenses/permits for the use of water in perpetuity. They are now issued for a limited number of years after which they are subject to review. Section 28 (e) of the South African Water Act

states that the license period may not exceed forty years. Section 28 (f) states that the review periods for the license must be at intervals of not more than five years. The Zimbabwean water Act on the other hand has almost similar provisions. Section 36 (1) states that a permit shall be valid for a period of twenty years or such shorter or longer period as a catchment council may fix. Section 36(3) specifies conditions under which a permit may be amended.

Both acts provide for the change in quantity of water allocated to a particular permit or license, extension of period of use, or cancellation of permit depending on how beneficial the water is being put to use. This is a big step in the struggle for levelling the playing field for all water users. What it implies is that in both countries, an opportunity has been created to review the allocations to different users and a possible adjustment of the allocations based on an assessment of the reasonableness of the use to which the water is put. In some cases, this might free up a significant volume of water for other users to take up. The fact that permits/licenses are to be issued for a limited time-span also implies that they can be withdrawn for reallocation to other more deserving users. New comers to the water sector can be easily accommodated. In Zimbabwe for instance, the previous water regime had made it difficult to accommodate new water users because of the priority date system, which allocated water on the basis of first in last out. This meant that those with earlier water rights would enjoy their full allocations first before later applicants could. There was no equitable access to the resource. A reversal of this situation must be seen as a welcome improvement to accessing water.

4.2 Decentralisation and Stakeholder Participation

The case for decentralisation of water management to the local levels is not contestable in both countries and the new legislation is also unequivocal on this. Both Acts address this concept in an almost similar manner. They specify the need to move water management to the river basin or catchment level to facilitate more stakeholder participation in the management of the resource. This results in the formation of user based institutions known in Zimbabwe as Catchment Councils (CCs) and in South Africa as Catchment Management Agencies (CMAs). In Zimbabwe CCs manage all the water in a particular catchment and in South Africa, the CMA manages all water in a Water Management Area (WMA). Chapter 7 of the South African Water Act states that the purpose of establishing CMAs is to delegate water resources management to the regional or catchment level and to involve local communities, within the framework of the national water resource strategy. Section 11 (1) of the Zimbabwean Water Act states that the minister may declare any catchment area to be a river system. Section 11(2) also states that a river system shall be under the control of a catchment council.

Subsequent to the formulation of the new legislation, South Africa was divided into 19 water management areas and Zimbabwe into 7 catchments managed by CMAs and CCs respectively. Therefore, the legislation has already started to be translated into practice in both countries. Both the CMAs and the CCs are body corporates capable of suing and being sued at law. Section 79 (1) (a) of the South African Water Act states that a catchment management agency is a body corporate, and has the powers of a natural person of full capacity. Section 20 (2) of the Zimbabwean Water Act states that a catchment council shall be a body corporate, capable of suing and being sued in its own name and of performing such functions as a body corporate may by law perform.

CMAs and CCs are expected to have overall responsibility for the management of water in their areas of jurisdiction. To carry out this duty, they will be assisted by technical and administrative staff. In Zimbabwe, the Water Act provides for the establishment of a new parastatal, the Zimbabwe National Water Authority (ZINWA). The parastatal is expected to take over the management and development of water resources countrywide on a

commercial basis as well as to provide technical support to the CCs. In effect, the CCs are accountable to ZINWA. In South Africa, overall national responsibility for water management remains the domain of DWAF. In Zimbabwe, the Department for Water Development (DWD) will retain a policy-making role, it will be heavily streamlined and most of its workforce will be transferred to ZINWA. The implications of the above are that the Zimbabwe Water Act has created more structures at the top than the South African one. Total power and authority vested in ZINWA and DWD is equivalent to that held by DWAF in South Africa. The potential for bureaucratic difficulties is higher in Zimbabwe than in South Africa.

Analysis of the emerging water management regimes in the two countries would be incomplete if no mention is made of the position of chief executive officer (CEO) or catchment manager that exists at the catchment level. This position carries the responsibility of running the day-to-day activities of the CMA or the CC. Major differences exist between the two Water Acts regarding this position. Schedule 4, section 3 of the South African Water Act stipulates that the CMA governing board may appoint a suitably qualified person as chief executive officer of the institution. Section 28 (1) of the Zimbabwean Water Act states that for the day-to-day management and administration of the affairs of a catchment council, there shall be a catchment manager who shall be an employee of the National Water Authority. The main difference being emphasised here is that in South Africa, the CEO is appointed by the CMA board and is therefore, accountable to an authority at the catchment level. In Zimbabwe, the catchment manager is appointed by ZINWA and is therefore accountable to an authority based in the capital city. The possibility of friction between this catchment manager and the CC cannot be ruled out. It would be better for the manager to be accountable to the CC (as is the case in South Africa) because this is the authority responsible for management of water in the catchment. In the given circumstances, it might be difficult for the CC to hold the manager accountable to them, yet they are supposed to be the custodians of all water in their catchments. In terms of development theory, the set-up provided for in the Zimbabwean water Act conforms to the mixed authority mode of decentralisation in which governmental appointees are brought together with local representatives to form a management institution at the local level. Unfortunately, chances are that the governmental appointees will dominate the decision-making and deliberations at that level.

Other Water Act provisions regarding the position of catchment manager in Zimbabwe are also a mockery to stakeholder participation. Section 29 of the Zimbabwean Water Act permits the catchment manager to grant water permits, extend the duration of a permit, or cancel existing permits as long as the CC is not meeting. The same provision goes further to state that any parties to a dispute may make submissions to the catchment manager and his decision over that matter will have the same force as if it were a decision of a catchment council. The amount of power granted to the catchment manager in Zimbabwe is questionable and has already been a subject for heated debate in various fora. Some of the questions that arise include whether the amount of power granted to the manager will not create conflict between him and the CC; if the catchment manager can single-handedly issue out permits, then what guarantee do we have that he will not abuse this power by granting permits to friends or those who bribe him? In addition to this, if he can cancel a permit or preside over a dispute and still make a decision with the same "force" as that of CC, are the implications of this on stakeholder participation and democratic governance encouraging ones? A general answer to these questions is that stakeholder consultation and participation may easily be negated in the Zimbabwean model than the South African one. This will depend, to a large extent, on the personality involved. In other words, some may be corrupted by the power delegated to them and some may not. Nevertheless, the legislation appears to provide room for abuse.

The South African Water Act spells out the need to promote stakeholder participation. Section 80 (e) states that one of the functions of the CMAs is "to promote community

participation in the protection, use, development, conservation, management and control of the water resources in its management area." The Zimbabwean Water Act might be slightly less obvious in spelling out the issue of stakeholder participation but closer scrutiny reveals that it is covered to some extent. Section 6 (2) (c) states that it is the duty of the minister to encourage participation of all consumers in all sectors and catchment councils in the development, exploitation and distribution of water resources. Section 25 (1) of the Act states that before proceeding to the determination of any matter submitted to it, a catchment council shall satisfy itself that all persons who, in its opinion, have an interest which is reasonably likely to be adversely affected by the determination have been duly notified of the proceedings. The emphasis put on the formation of catchment-based management structures and stakeholder participation in both countries takes care of the need for decentralising management of the resource to the community. The idea is to take advantage of the utility of smaller units of management at the catchment level rather than managing the resource at the central government level because the central government level is usually quite removed from the realities at the grassroots level.

In line with the above development route, the new legislation in both countries goes further to decentralise management responsibility to structures below the catchment level. In Zimbabwe, there are Sub-Catchment Councils (SCCs) while in South Africa, the equivalence of the SCC is the Geographical Catchment Management Committee (GCMC) as well as other advisory committees that the CMA may form. These lower structures are expected to feed relevant information into the upper structures as well as carrying out other duties delegated to them by the higher structures. This further decentralises power closer to the communities that the new structures are expected to serve.

Due to geographical and logistical problems, it is necessary to further decentralise management responsibility to units that are smaller than the SCC or the GCMC. The South African, Water Act provides for the establishment of Water User Associations (WUAs). These will manage water in very small localities like the catchment area of a small stream while at the same time pursuing other water related interests as laid down in their constitution. Chapter 8 of the South African Water Act states that although water user associations are water management institutions, their primary purpose, unlike the catchment management agencies, is not water management. They operate at a restricted localised level, and are in effect co-operative associations of individual water users who wish to undertake water-related activities for their mutual benefit. The CMAs or the responsible minister may delegate other duties to the WUAs.

In Zimbabwe, the new Water Act does not provide for the establishment of WUAs. To the extent that the Zimbabwean Water Act is silent on the issue of this lower tier, one can argue that the South African water Act provides for a better water management regime, which is more responsive to the needs of people at the grassroots level. The fact that it takes cognisance of the need to decentralise management responsibility to the lowest possible level makes it a better management instrument than the Zimbabwean one. However, the pilot catchment planning projects of the Mazowe and Mupfure catchments have already established WUAs or Water User Boards in order to ensure effective management of the resource. The functionality of these structures is threatened by their lack of legitimacy since they are not recognised in the new Water Act. They do not have logistical and financial support from government and donors. This seriously affects their operations. Members of the pilot catchment planning projects have already been lobbying central government to legalise this lowest tier in the management hierarchy in order to arrest the problem. The need for this lower institutional structure appears axiomatic. South Africa has already provided for it in the Water Act and Zimbabwe is well advised to follow suit.

4.3 Sustainability

Both Acts emphasise the need for proper catchment planning and management in the physical sense for the conservation of the available water resources through integrated catchment management (ICM). This means putting more emphasis on the interface between human activities, land and water resources. A little bit of the theory behind the concept could be helpful.

The Australian Water Association defines ICM as:

> *"A holistic natural resources management system comprising interrelated elements of land and water in a river basin, managed on an ecological and economic basis. It is a system that favors the integration of environmental policy across government, community, and industrial sectors through partnerships and extensive stakeholder inclusion." (Water Tec Consultants report – 1999: 9)*

The United Nations Conference on Environment and Development held in Rio de Janeiro in 1992 described ICM as a concept

> *"...based on the perception of water as an integral part of the ecosystem, a natural resource and social and economic good,....water resources have to be protected, taking into account the functioning of aquatic ecosystems, ...in order to satisfy and reconcile needs for water in human activities."*

It suffices to state that the above definitions neatly sum up the ideal situation and that this ideal situation is reflected in the new legislation. Both Acts, spell out the need to manage water systematically by relying on properly formulated catchment management plans and strategies. Chapter 2, Part 2 of the South African Water Act requires every catchment management agency to progressively develop a catchment management strategy for the water resources within its water management area. Catchment management strategies must be in harmony with the national water resources strategy. The same part also clearly states that the catchment management strategy must set principles for allocating water to existing and prospective users, taking into account all matters relevant to the protection, use, development, conservation, management and control of water resources.

For Zimbabwe, section 12 (1) states that for the purpose of ensuring optimum development and utilisation of the water resources, the National Water Authority, and the catchment council concerned, shall prepare an outline water development plan for every river system. The requirements in both Acts show that water will not be allocated in a haphazard manner and this has positive implications for conservation and sustainability of the resource. It gives room for the catchment to be managed in an integrated manner. Section 6(2) (h) points out that the minister must promote efficiency and economy in the utilisation of water resources and encourage the use of water serving technologies. This provision reminds one that a lot could be gained in using less water in a more efficient manner. Given the growing demands for water every day, water saving is an option in the battle for sustainable utilisation of the resource.

Both Acts have strict provisions on environmental conservation and pollution control. They also treat the environment as a water user in its own right. Section 6 (1) (b) of the Zimbabwean Water Act states that one of the minister's functions will be to ensure the availability of water to all citizens for primary purposes and to meet the needs of aquatic and associated systems particularly when there are competing demands. It is also specified in section 67 (a) that due consideration shall be given to "the protection, conservation and sustenance of the environment". Section 68 of the same Act provides for pollution permits

which will ensure that those who pollute water sources will have to pay much more than before for polluting the country's water. Those caught polluting without permits will be punished severely. This is the application of what has come to be commonly known as the 'polluter pays principle. '

In the South African Water Act, one finds almost similar provisions. Chapter 3, part 4 of the Act deals with pollution prevention, and in particular the situation where pollution of a water resource occurs or might occur as a result of activities on land. The person who owns, controls, occupies or uses the land in question is responsible for taking measures to prevent pollution of water resources. If these measures are not taken, the catchment management agency concerned may itself do whatever is necessary to prevent or to remedy its effects, and to recover all reasonable costs from the persons responsible for the pollution. What the South African Water Act does not provide for are permits for polluting. This might make it difficult for monitoring to be carried out since there will be no data-base to which one can refer to on a regular basis. In the Zimbabwean case, monitoring might be slightly easier since polluters are expected to apply for permits and be registered.

One interesting issue addressed by both the South African and the Zimbabwean Water Act is that of water management in times of shortages or acute droughts. Both Acts give priority to primary and environmental water needs. They provide for the strict regulation of water use in order to ensure that there is some water for the environment. Chapter 3, Part 3 of the South African Water Act states that water shall be reserved for the ecology in order to protect the aquatic ecosystems of the water resource. In addition, the reserve refers to both quantity and quality of the water in the resource, and will vary depending on the class of the resource. Similarly, section 57 of the Zimbabwean Water Act provides for a certain amount of water to be reserved for future use. In section 61, it goes further to provide for the declaration of water shortage areas when the minister and the CC concerned are of the opinion that water in a public stream has ceased flowing or is likely to cease flowing. In a water shortage area, water permits are suspended and water is reallocated taking into consideration the lower quantities available. This ensures that the water is not abstracted beyond sustainable limits.

Institutional effectiveness is a part of the sustainability concept. The new legislation attempts to ensure this by providing for the decentralisation process already described in this paper. The strength of decentralisation would lie in the fact that institutions that emerge at the catchment level are likely to be more relevant to the social, economic and political conditions prevailing at the local level. In terms of day-to-day operations, locally based institutions tend to incur fewer costs than national ones because they do not have huge transport costs. Locally elected institutions are more effective than national ones because they easily gain legitimacy among the communities they serve. Unlike local officials, external agents are more susceptible to being viewed as strangers or intruders who come to disturb local systems of resource utilisation. To continue dwelling on the advantages of catchment based institutions is not necessary here because it would mean to recite decentralisation theory. It suffices to state that to the extent that both Acts provide for a shift of water management responsibilities from the confines of central government to the catchment level, they address the need to facilitate the growth of effective institutions and by extension, sustainable resource utilisation and management.

One issue that impacts on institutional capacity and sustainability is that of support from central government. There are many cases in which decentralised institutions for resource management are not given the requisite financial support or autonomy. The manner in which new institutions are financed has a bearing on how effective they are in carrying out their duties. Section 84 (1) of the South African Water Act points out that a catchment management agency may raise funds required by it for the purpose of exercising any of its powers and carrying out any of its duties. Section 84 (2) also states that the CMA must be

funded by (a) money appropriated by parliament; (b) water use charges. The Zimbabwean Water Act only specifies that SCCs can levy water users in their areas to raise funds for their operations. It is silent on funding for CCs and one is left speculating as to whether the funding of CCs will be provided by central government, ZINWA or from collection of levies in their areas of jurisdiction. This leaves unclear the question of whether the CCs will have sufficient funds to operate effectively and sustainably.

It is also necessary to point out that the new Zimbabwean Water Act has the shortcoming of not recognising the water user association level. The result is that the WUAs will not be eligible for technical, financial, and advocacy assistance from central government. Like their South African counterpart, the WUAs in Zimbabwe are responsible for the management of water in a relatively small area in comparison to the CCs and CMAs but geographically, the total area is still a huge entity that cannot effectively function without the necessary support from the government. Musami WUA in the Mazowe catchment for instance has an area of 84 980 hectares. The likely result of this situation is that the institution responsible for conveying information to the grassroots level (the WUA) is incapacitated. If the WUA is not fully functional, information and education about the reforms will not reach the intended target. Sustainable management of the resource is therefore, threatened because of institutional incapacity.

4.4 Water as a Social and Economic Good

In line with the need to recover costs of water provision, the South African Water Act provides for the setting of water use charges taking into consideration the fact that there are social obligations that must also be realised. Chapter 5, part 1 of the Act states that the minister may, from time to time, after public consultation, establish a pricing strategy which may differentiate among geographical areas, categories of water users or individual water users. Water use charges are to be used to fund the direct and related costs of water resources management, development and use, and may also be used to achieve an equitable and efficient allocation of water. In a sense, the "user pays" and the "polluter pays" principles already described elsewhere in this paper are being applied in both countries. The Zimbabwean Water Act does not provide for the fixing of water prices but this is covered under the Zimbabwe National Water Authority Act. Section 30 of the ZINWA Act states that the Authority may fix charges for the sale of raw and treated water; disposal of wastewater; drilling of boreholes and provision of consultancy services. It further provides for the fixing of different charges for the sale of water to different classes of people or for different uses (price discrimination). What the new legislation in both countries does is to emphasise the importance of viewing water as an economic good without necessarily negating its importance as a social good. The differentiation of pricing among different users shows that the legislation takes cognisance of the fact that some may be able to afford to pay for the water at a particular price while some may not. Small though the charges envisaged may appear, they have the potential to put many small farmers out of business.

The importance of the social nature of water is further emphasised in both the Zimbabwean and the South African Water Acts by providing for the needs of water for primary purposes. Both Acts state that there shall be no charges for primary water use. The Zimbabwean Water Act however goes a step further to provide some protection for communal areas. The South African Water Act has the shortcoming of not catering for the needs of communal areas in a clear and straightforward manner. Almost no water is allocated to the communal areas and little provision is made for future allocations to these areas. One wants to believe that the communal areas are provided for under the section that deals with the reserve because if that is not the case, an area with potential for considerable water use is being neglected. Section 48 (1) of the Zimbabwean Water Act stipulates that in exercising his powers, the minister shall have due regard to the interests of occupants of communal land. Section 51 (1) states that no permits granted by a catchment council, other than water

granted to a local authority for primary purposes, shall have the effect of depriving persons of the use of water for primary purposes. Section 2 (a) of the South African Water Act states that the purpose of the Act is to meet the basic human needs of present and future generations. Schedule 1 of the same Act stipulates that a person may take water for reasonable domestic use; small gardening not for commercial purposes; watering animals; and recreational purposes. In both Acts, water for primary purposes does not require a license or permit. The implications of this are clear. Water is a basic need in terms of human survival and no matter how much we may want to treat it as an economic good, primary water use needs to be excluded from this requirement.

5. CONCLUDING REMARKS

It is interesting to note that both countries are currently undertaking water and land reforms but the two reforms have been kept separate. Even the legislation has also not addressed the need to bring the two reforms together. In South Africa, indications are that there is little or no water left for the establishment of new farmers on new land. The available water has largely been allocated to users. In Zimbabwe, there is still some water that can be harnessed and developed for new users but it does not necessarily lie on irrigable land. Large-scale commercial farmers have already taken up most fertile land. Provision of water to communal lands for instance will not necessarily translate into widespread utilisation of the water because irrigable land is scarce. We therefore, have a situation whereby South Africa might have the land but no water and Zimbabwe might have the water but no land. The need for land reform cannot be separated from water reform. In addition, equity of access to water or land is not enough; it must be complemented by access to other support services, at least in the short term, in order to make the new regime viable and sustainable. Land policy, water policy, and irrigation policy cannot be dealt with in isolation. There are also indications in both countries that central government will play a reduced role in the development of new infrastructure for water development.

The legislation does not sufficiently emphasise the need to educate and train the CCs and CMAs in order to build their capacity. The assumption seems to be that once formed, these institutions will start functioning effectively. Without sufficient capacity building, the new institutions may not work. The legislation does not adequately consider provision of incentives and disincentives for promotion of water efficient technology as an option that helps in the battle for sustainability. This could have been given more attention. The contribution of other governmental departments is vital in carrying the water reforms to successful completion but what happens if they do not cooperate? The legislation is silent on the operational procedures to be followed in order to ensure their co-operation. Inter-ministerial and interdepartmental collaboration needs to be spelt out clearly in the Acts.

Despite the gaps identified above, the review of the two Acts has generally shown that the core purpose and spirit behind the new legislation is to ensure the utilisation of water resources in line with the equity, efficiency, sustainability and stakeholder participation principles. Redressing past imbalances in water use and allocation is definitely on the agenda in both countries. However, care must be taken to ensure that what was wrong in the past is not corrected by doing something wrong today. Certainly, both countries have reached a turning point in their history and the new legislation is clear testimony to this. Most of the differences identified between the two Acts are minor. It remains to be seen whether the legislation will be successfully put into practice. In the foreseeable future, there will be need for research to be carried to assess the practical application of the reforms on the ground.

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